

**REMARKS**

**I. Status of the Claims**

Claims 1-2 and 4-11 and 13-25 are now pending in this application and stand rejected. Claims 1, 24, and 25 have been amended to be consistent with dependent claims 6 and 7. Support for these amendments can be found in claims 6 and 7, along with Example 1. Claims 1, 24 and 25 have also been amended to incorporate the subject matter of claim 12. Claim 12 has been canceled. Further support for the amendments can be found in the specification as filed at [0028]. Accordingly, applicants submit that no new matter has been added.

**II. Rejection under 35 U.S.C. § 112**

The Examiner rejects claims 6 and 7 under 35 U.S.C. 112, second paragraph, as allegedly “being indefinite for failing to particularly point out and distinctly claim the subject matter to which applicant regards as the invention.” Office Action at 2. Specifically, the Examiner points out that claims 6 and 7 contradict claim 1 because claim 1 recites “an amount greater than 15%” and claims 6 and 7 recite an amount ranging from “15% to 55%” and “15 to 40%” respectively. *Id.* at 2-3. Accordingly, Claims 1, 24 and 25 have been amended to obviate the contradiction, and now include the endpoint of 15%. Support for these amendments is found in Example 1, and is impliedly found in the language of the dependent claims 6 and 7. In view of these amendments, this rejection is now moot.

### III. Rejections under 35 U.S.C. § 103 over Bolich

The Examiner has rejected claims 1-2, 4-10 and 12-25 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,635,240 to Bolich et al. ("Bolich").

The Examiner states that Bolich discloses "aerosol hair styling compositions which comprise (a) from about 5% to about 90% of a water soluble polyalkylene glycol (polyol) . . .; (b) from about 1% to 90% of a liquid carrier; and (c) from about 5% to about 40% of a propellant." Office Action at 3-4. The Examiner further contends that Bolich discloses compositions further comprising "a gelling agent . . . in an amount from about 0.1% to about 10%. Office Action at 5. The gelling agents include cross linked carboxylic acid polymers, such as Carbopol, "which contain unneutralized acid monomers (anionic polymer)." *Id.* The Examiner admits that "Bolich does not exemplify the instant concentrations of propellant and Carbopol." *Id.* at 6. However, the Examiner points to Bolich's teaching of propellant in an amount of 5-40%, and gelling agent in an amount of 0.1-10%, and the Examiner alleges that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to look at the guidance provided by Bolich et al and manipulate the concentrations of the propellant and carbopol in the composition." *Id.* at 6-7. Applicants respectfully disagree.

Several basic factual inquiries must be made to determine whether the claims of a patent application are obvious under 35 U.S.C. § 103. These factual inquiries, set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), require the Examiner to:

- (1) Determine the scope and content of the prior art;

- (2) Ascertain the differences between the prior art and the claims in issue;
- (3) Resolve the level of ordinary skill in the pertinent art; and
- (4) Evaluate evidence of secondary considerations.

The obviousness or non-obviousness of the claimed invention is then evaluated in view of the results of these inquiries. *Graham*, 383 U.S. at 17-18, 148 USPQ 467; *see also KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1734 (2007) and M.P.E.P. § 2141.

The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." M.P.E.P. § 2142, citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006); *see also KSR*, 127 S. Ct. at 1741, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval). Exemplary rationales that may support a conclusion of obviousness include, *inter alia*, "simple substitution of one known element for another to obtain predictable results" and "some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention." M.P.E.P. § 2143.

In the present case, Applicants submit that Bolich does not provide guidance to "manipulate the concentrations of the propellant and [C]arbopol in the composition" to arrive at the presently claimed composition. The Examiner's assertion to the contrary amounts to a mere conclusory statement.

As an initial matter, Bolich does not teach aerosol hair spray compositions as presently claimed. The composition of Example XV, pointed to by the Examiner, does contain a low molecular weight polyethylene glycol (PEG), but is a hair mousse composition with less than the claimed amount of anionic polymer, and a significantly lower amount than claimed of propellant. It therefore does not fall within the scope of the presently claimed aerosol hair spray composition. As noted in the present specification, the "majority" of hair styling products which give a waxy effect "are presented in the form of a more or less viscous paste which is applied to the hair by hand." Specification at [007]. In other words, compositions used to get the desired effect are not usually in a form that is easy to use and apply. Even if an aerosol was contemplated, a person skilled in the art would recognize that gelling agents, such as Carbopol, would increase the viscosity and surface tension of the composition, characteristics that could be problematic if the composition were to be delivered in aerosol form. Indeed, the present discovery that the use of low-molecular-weight polyols in high concentration in combination with anionic fixing polymers, packed in aerosol form, can "impart a waxy effect to the hair without detracting from its cosmetic properties," is surprising and unexpected. See *id.* at [008].

Furthermore, the Examiner improperly equates polyalkylene glycols with the instantly claimed polyols. Replacing polyalkylene glycols with polyols is not a simple substitution of one known element for another to obtain predictable results. The polyalkylene glycols disclosed in Bolich are polymers with repeating units of -OCH<sub>2</sub>CH<sub>2</sub>-, whereas polyols are hydrocarbon chains with at least two hydroxyl groups. As presently amended, however, independent claims 1, 24 and 25 recite polyols comprising a C<sub>3</sub>-C<sub>30</sub>

hydrocarbon chain which is not interrupted by a heteroatom. Hence the polyalkylene glycols disclosed in Bolich, with only 2 continuous carbon atoms, are outside the scope of the instant claims. Bolich therefore provides no teaching or suggestion for the use of polyols.

Therefore this rejection is improper and should be withdrawn.

**IV. Rejection under 35 U.S.C. § 103(a) over Birkel et al.**

The Examiner has rejected claims 1-2, 4-25 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent Application Publication No. 2001/0003584 to Birkel et al. ("Birkel").

The Examiner states that "Birkel discloses a hair composition comprising (a) a terpolymer present in the composition in an amount of 0.01% to 20% and (b) a[n] anionic polymer present in an amount of from 0.01% to 20%. . ." Office Action at 7. The Examiner points out that the examples of Birkel utilize 10% water and above. *Id.* at 8. The Examiner admits that Birkel does not provide an example comprising the instant glycols as co-solvents in any of the examples. *Id.* at 10. The Examiner asserts that "it would have been obvious . . . to utilize the instant polyols in the instant concentration in the examples. One would have been motivated . . . since Birkel teaches the use of organic co-solvents such as ethylene glycol, glycerol, and propylene glycol in an amount of up to 30% with the aqueous or alcohol medium." *Id.* Applicants respectfully disagree.

As stated above, obviousness rejections “cannot be sustained with mere conclusory statements;” yet that is precisely what the Examiner does with the rejection over Birkel.

More specifically, the disclosure of Birkel does *not* direct one of ordinary skill in the art add polyol to its composition, but merely discloses ethylene glycol, glycerol and propylene glycol as one possible group of organic solvents that can be included in the composition in an amount of up to 30% by weight of the total composition. Birkel at [0027]. The implication of the language in Birkel is that, should the need for an organic co-solvent arise, i.e. in order to dissolve ingredients in the composition, which are not water-soluble, these polyols are especially preferred as water soluble solvents. The Examiner even supports this interpretation: “it would have been *prima facie* obvious to add a co-solvent to the aqueous or alcoholic-aqueous medium to further solubilize other additives in the composition.” Office Action at 10 (emphasis added). Therefore, one of ordinary skill in the art would have to first choose an ingredient which is not compatible in an aqueous-alcoholic medium, and then choose the claimed polyol to whatever extent necessary to dissolve that ingredient. The Examiner provides no rationale as to why Birkel would suggest to one skilled in the art to add to its composition a water/alcohol insoluble material. With no motivation to add such material, the Examiner, then provides no rationale as to why one skilled in the art would add the polyol. The mere mention of polyols as co-solvents does not amount to guidance to add the claimed polyol, and one skilled in the art would see no reason to modify Birkel by adding the polyol by itself. For at least this reason, this rejection is improper and should be withdrawn.

**V. Rejection under 35 U.S.C. § 103(a) over Carballada et al.**

The Examiner has rejected claims 1-2 and 4-25 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,585,965 to Carballada et al. ("Carballada").

The Examiner states "[e]xample [XVIII] teaches a composition comprising 38.90% water, 15% ethanol, 1% polyurethane-1 (anionic polymer), 12% PEG-8 ((PEG-8 is also known as Carbowax 400 and has a MW of 400) . . . 30% dimethyl ether, among other components. The composition is in an aerosol container." Office Action at 11. The Examiner admits that "Carballada does not exemplify the instant concentration of PEG-8." *Id.* The Examiner points to Carballada's teaching of the polyalkylene glycol at "about 5-20% wherein the concentration used depends on the desired styling properties." *Id.* The Examiner states that "it would have been obvious to one skilled in the art at the time the invention was made to look at the guidance provided by Carballada and utilize the instant weight percent of the polyalkylene glycol in the composition." *Id.* Applicants respectfully disagree.

As an initial matter, like the rejection in Bolich, the Examiner improperly assumes that polyalkylene glycols are equal to the instantly claimed polyols. As in Bolich, the polyalkylene glycols disclosed in Carballada are polymers with repeating units of -OCH<sub>2</sub>CH<sub>2</sub>- . As discussed above, polyols are hydrocarbon chains with at least two hydroxyl groups. As presently amended, independent claims 1, 24 and 25 recite polyols comprising a C<sub>3</sub>-C<sub>30</sub> hydrocarbon chain which is not interrupted by a heteroatom. Hence the polyalkylene glycols, with only 2 continuous carbon atoms, disclosed in Carballada are outside the scope of the instant claims. Carballada provides no teaching

or suggestion for the use of polyols. For at least this reason this rejection is improper, and applicants respectfully request that it be withdrawn.

**VI. Double Patenting Rejections**

Applicants wish to thank the Examiner for reviewing, accepting and recording the terminal disclaimer disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 10/796,016, 11/124,229, and 11/220,586.

With respect to the remaining double patenting rejections, applicants first wish to remind the Examiner that the Notice of Panel Decision from Pre-Appeal Brief Review of August 3, 2007, stated that “[t]he rejection is withdrawn.” Applicant assumes this means all pending rejections were withdrawn, as all of the other rejections made in the present Office Action are new. Moreover, it appears to the applicants that the rejections below are identical to the rejections issued by the Examiner in the Final Office Action of January 18, 2007, pages 20-28. Furthermore, the Examiner even indicates in the present Office Action that she considered “arguments filed 5/22/06.” Office Action at 14,17. It does not appear to the applicants that the Examiner has considered Applicant’s subsequent arguments in the Response to the Final Office Action, dated March 29, 2007, and the Pre-Appeal Brief Request for Review, filed June 18, 2007.

For the Examiner’s convenience, applicants again provide the arguments relating to the two remaining double patenting rejections from the Pre-Appeal Brief Request for Review, filed June 18, 2007, below.

**1. Double Patenting Rejection over Copending Application No. 10/279,036**

**in view of U.S. Patent No. 5,639,448**

The Examiner maintains the provisional rejection of claims 1, 2, and 4-25 on the ground of nonstatutory obviousness-type double patenting over claims 23-50 of copending Application No. 10/279,036 ("the '036 application") in view of U.S. Patent No. 5,639,448 ("US '448"). Final Office Action at 20. Applicants respectfully traverse this rejection.

In order to establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, and the prior art references, when combined, must teach or suggest all the claim limitations of the rejected claims. M.P.E.P. § 2143. Applicants contend that the Examiner has failed to establish a *prima facie* case of obviousness at least because the '036 application fails to teach or suggest all of the claim limitations, and a person skilled in the art would not have been motivated to combine the '036 application with US '448 to produce the claimed invention.

The Examiner admits that the '036 application claims do not include at least 15% of a polyol. Final Office Action at 21. According to the Examiner, it would have been obvious to include polyols in the presently claimed concentration because "US '448 teaches the instant polyols are *conventionally* utilized as solvents and carriers." *Id.* (emphasis in original). *Id.* The Examiner has provided no evidence of motivation to combine US '448 with the claims of the '036 application. US '448 merely states that other cosmetic additives can be incorporated in its claimed composition. US '448 at col.

13, II. 56-59. One possible additive is an organic solvent, which can be added to solubilize compounds that are not sufficiently soluble in water. *Id.* at col. 13, II. 64-67. Among these additives, polyols are "suitable solvents" for the composition that "can be present in an amount from about 1% to about 75%." *Id.* at col. 14, II. 3-10. The Examiner states that polyol solvents are *conventionally* utilized in hair compositions as carriers and solvents. Final Office Action at 21 (emphasis in original). However, such indication that polyols may be required for the solubility of particular compounds is not tantamount to conventional use, especially when there is no suggestion in the '036 application that solubility of any particular compounds is a concern.

Also, Applicants maintain, for reasons of record, that the Examiner's citation of *In re Aller* is inappropriate. The Examiner fails to explain how the conclusions of *In re Aller*, which were made in reference to a chemical process with defined ingredients, can be extended to the choice of ingredients, as well as the concentration of ingredients, for a composition as presently claimed. Moreover, the Examiner has provided no evidence that modification of the '036 claims by the addition of a polyol in the claimed amount would result from the "routine efforts of the artisan." There is simply no sufficient suggestion or motivation to combine.

For at least these reasons, Applicants respectfully submit that the '036 application claims and present claims are not obvious modifications of one another. Therefore, the rejection should be withdrawn.

**2. Double Patenting Rejection over Copending Application No. 10/479,170**

**in view of U.S. Patent No. 5,639,448**

The Examiner maintains the provisional rejection of claims 1-25 on the ground of nonstatutory obviousness-type double patenting over claims 20-36 of copending Application No. 10/479,170 ("the '170 application") in view of US '448 . Office Action at 25.

Applicants respectfully traverse for the reasons stated above.

The Examiner admits that the '170 application fails to claim a polyol in the composition, and again relies on US '448 to teach the use of a polyol in the presently claimed amount. Final Office Action at 26. Applicants submit that the '448 patent provides no motivation to one of ordinary skill in the art to use a polyol in the presently claimed amount in the claims copending in the '170 application. Accordingly, Applicants request withdrawal of the rejection.

**CONCLUSION**

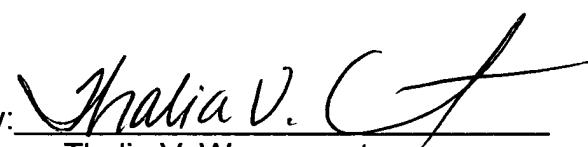
In view of the above arguments and amendments, Applicants submit that the present claims are in condition for allowance. Prompt action by the Examiner is respectfully requested.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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